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Why It Pays to File for Bankruptcy: A Critical Look at the Incentives Under U.S. Personal Bankruptcy Law and a Proposal for Change

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The United States is extremely unusual among industrialized nations for its very pro-debtor bankruptcy laws. The United States also stands alone in having a high—and rapidly increasing—bankruptcy filing rate.[1] The number of bankruptcy filings in the United States rose from under 400,000 per year in 1985 to over 1 million in 1996,[2] and filings during the first six months of 1997 were running at a rate of 1.4 million for the year.[3] Despite

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[1] For discussion of bankruptcy procedures in other countries, see Michelle J. White, *The costs of corporate bankruptcy: A U.S.-European comparison*, in Jagdeep S. Bhandari and Lawrence A. Weiss, eds, *Corporate Bankruptcy: Economic and Legal Perspectives* 467, 468-79 (Cambridge 1996) (comparing French, German, U.S., and U.K. bankruptcy laws); F.H. Buckley, *The American Fresh Start*, 4 S Cal Interdiscip L J 67, 68-79 (1994) (comparing U.S. and Canadian bankruptcy laws).

[2] See United States Bureau of the Census, *Statistical Abstract of the United States 1997* 549 table 856 (GPO 117th ed 1997).

[3] The total number of bankruptcy filings during the first six months of 1997 was approximately 702,200. See Administrative Office of the US Courts, Press Release, *Bankruptcy Filings Continue Climb in 3rd Quarter of Fiscal Year 1997* (Aug 15, 1997).

the soaring bankruptcy filing rate, a federally appointed panel, the National Bankruptcy Review Commission, recently recommended changes in the bankruptcy law that would make filing for bankruptcy even more favorable for nearly all debtors.[4]

This Article considers why consumer bankruptcy is so common in the United States, focusing particularly on the role of property exemptions and how strategic behavior can make filing for bankruptcy attractive even to high-income households. To avoid such pathologies, this Article proposes changes to the bankruptcy system that would appropriately limit the attractiveness of the bankruptcy process. Part I briefly introduces the current personal bankruptcy system. Part II examines the economic justification for having a personal bankruptcy procedure at all and argues that having such a system improves economic efficiency. However, the costs of the procedure rise more quickly than the benefits as the amount of assets exempt from the bankruptcy process increases. Thus, while exemptions from bankruptcy may sometimes be appropriate, the level should not be set too high. Part III then explores various strategies that households can use to increase their financial benefit from bankruptcy. This Part calculates the proportion of households that have a financial incentive to file for bankruptcy when they use these strategies. These calculations show that current U.S. bankruptcy laws are manipulated so easily that a majority of households can benefit financially from bankruptcy if they plan in advance. Subject to occasional judicial limitations,[5] many bankruptcy exemptions are in effect unlimited, which gives too many households an incentive to file for bankruptcy rather than to take responsibility for repaying their debts. Part III also analyzes the effect of adopting the exemption proposals of the National Bankruptcy Review Commission and shows that they would greatly exacerbate current problems. Finally, Part IV proposes a reform of the personal bankruptcy system under which debtors in bankruptcy would be required to use both their current wealth and their future earnings to repay debt, with appropriate exemptions for both. The proposed reform would end the anomaly under the current system whereby some debtors obtain discharge of their debts in bankruptcy even though they have high incomes and, often, high wealth. Under the proposed reform, fewer households would have

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[4] See National Bankruptcy Review Commission, 1 *Bankruptcy: The Next Twenty Years* (GPO Oct 20, 1997) ("*NBRC Final Report*").

[5] See Lawrence Ponoroff, *Exemption Limitations: A Tale of Two Solutions*, 71 Am Bankr L J 221, 229-31 (1997) (discussing two cases in which a bankruptcy judge denied debtors the gain from their prebankruptcy planning).

an incentive to file for bankruptcy, and debtors with a high ability to repay their debts would be deterred from filing. Households that have low wealth and low income, however, would still benefit from the discharge of debt in bankruptcy and receive a "fresh start."

I. U.S. PERSONAL BANKRUPTCY LAW

The United States has two individual bankruptcy procedures, Chapter 7[6] and Chapter 13,[7] and debtors have the right to choose between them.[8] When debtors file for bankruptcy under either procedure, the "automatic stay" stops creditors' attempts to collect on unpaid debts by, among other means, garnishing the debtor's wages or attaching the debtor's property.[9]

Under Chapter 7, a debtor must surrender all of his nonexempt assets;[10] these assets are sold and the proceeds used to pay his debts.[11] Secured debts such as mortgages and car loans are paid first.[12] What is left of the assets is then used to pay unsecured debts, such as credit card debts, installment loans, medical bills, and tort judgments.[13] Remaining unsecured debts are discharged.[14] Debtors are not obliged to use any of their future in-

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[6] 11 USC §§ 701 et seq (1994).

[7] 11 USC §§ 1301 et seq (1994).

[8] 11 USC §§ 109(a)-(b), (e), 301, 706(a) (1994). There is a third procedure, Chapter 12, available only to family farmers. 11 USC § 109(f) (1994). Debtors sometimes file under Chapter 7 and then quickly file under Chapter 13, a procedure often referred to as filing a "Chapter 20." Doing so allows them to obtain discharge of most of their debts under Chapter 7. But because some types of debt can only be discharged under Chapter 13, debtors also file under Chapter 13 in order to obtain the broader discharge. In this case, they must propose a plan to use part of their future income to repay debt, but the plan only needs to cover those debts that cannot be discharged under Chapter 7. See David G. Epstein, Steve H. Nickles, and James J. White, *Bankruptcy* 51-52 (West 2d ed 1993), for a discussion of the Chapter 20 strategy. See Douglas G. Baird and Thomas H. Jackson, *Cases, Problems, and Materials on Bankruptcy* 1131-36 (Little, Brown 2d ed 1990), for a comparison of Chapter 7 and Chapter 13.

[9] 11 USC § 362(a) (1994).

[10] Technically, all of the debtor's property, exempt or nonexempt, becomes part of the bankruptcy estate and must be turned over to the bankruptcy court, 11 USC § 541(a) (1994), with very limited exemptions provided in 11 USC § 541(b) (1994). Exempt property is then returned to the debtor. 11 USC § 522(b)-(c) (1994).

[11] 11 USC § 704(1).

[12] No single provision of the Bankruptcy Code specifies that secured creditors receive priority up to the value of their collateral, although it is widely understood. See Theodore Eisenberg, *Bankruptcy and Debtor-Creditor Law, Cases and Materials* 583 (Foundation 2d ed 1988). 11 USC § 725 authorizes disposition of property to secured creditors. The legislative history of this provision states in part: "The section is in lieu of a section that would direct a certain distribution to secured creditors." HR Rep No 95-595, 95th Cong, 1st Sess 382-83 (1977), reprinted in 1978 USCCAN 5963, 6338-39.

[13] The distribution of assets is governed by 11 USC § 726.

[14] 11 USC § 727(a). A few narrow classes of debt are not dischargeable. 11 USC § 523(a)

come to repay debts, regardless of how much they earn. About 70 percent of all bankruptcy filings occur under Chapter 7.[15]

Although bankruptcy procedures are uniform across the United States, the federal bankruptcy law allows individual states to set their own bankruptcy exemption levels.[16] States usually have separate exemption levels for equity in owner occupied principal residences ("homesteads"), equity in vehicles, personal property, and retirement accounts. The homestead exemption is nearly always the largest dollar amount. Appendix 1 describes the exemption levels in 1992 for each of the fifty states.[17] Exemption levels vary widely among the states. As of 1992, seven states, including Texas and Florida, had unlimited homestead exemptions, but twenty states had homestead exemptions of $7,500 or

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(1994). Debtors who have received a discharge of debts under Chapter 7 are barred from receiving another such discharge for six years. 11 USC § 727(a)(8).

In 1984, Congress amended the Bankruptcy Code to allow bankruptcy judges to dismiss Chapter 7 personal bankruptcy filings involving primarily consumer debts if the discharge of debt would be a "substantial abuse" of Chapter 7. Bankruptcy Amendments and Federal Judgeship Act of 1984, Title III § 312, Pub L No 98-353, 98 Stat 355, codified at 11 USC § 707(b) (1994). Although Section 707(b) can be read as a means of preventing debtors with high incomes from obtaining a discharge under Chapter 7, several factors have prevented it from consistently serving this role. First, some courts have taken the position that Chapter 7 petitions cannot be dismissed based solely on a debtor's ability to repay, and have allowed dismissal only when other sorts of abuse are present, such as criminal activity or the use of Chapter 7 to avoid provisions of a divorce agreement. See David B. Harrison, *Bankruptcy: When Does Filing of Chapter 7 Petition Constitute "Substantial Abuse" Authorizing Dismissal of Petition under 11 USCS § 707(b)*, 122 ALR Fed 141, 156-57 (1994). Second, the statute itself provides: "There shall be a presumption in favor of granting the relief requested by the debtor." 11 USC § 707(b). Third, the provision explicitly denies "parties in interest" (in other words, creditors) the right to initiate motions to dismiss bankruptcy filings based on substantial abuse. Only the United States Trustee, see 11 USC § 307 (1994), or the judge presiding over the action may move for a Section 707(b) dismissal. See Wayne R. Wells, Janell M. Kurtz, and Robert J. Calhoun, *The Implementation of Bankruptcy Code Section 707(b): The Law and the Reality*, 39 Cleve St L Rev 15, 19 (1991) (surveying bankruptcy courts and finding that few of them had programs in place to screen Chapter 7 filings for substantial abuse). Thus in practice, Section 707(b) has not consistently limited a debtor's right to file under Chapter 7 even if she has a high income level. See Buckley, 4 S Cal Interdiscip L J at 69 (cited in note 1) (discussing the legislative history of Section 707(b)); Karen Gross, *Preserving a Fresh Start for the Individual Debtor: The Case for Narrow Construction of the Consumer Credit Amendments*, 135 U Pa L Rev 59, 73-85 (1986) (same).

[15] See United States Bureau of the Census, *Statistical Abstract of the United States 1994* 549 table 850 (GPO 114th ed 1994).

[16] 11 USC § 522(b).

[17] Exemptions for 1992 are shown because the analysis of bankruptcy law in Parts III and IV below uses data for 1992. Some additional characteristics of state exemption rules, such as whether exemptions differ according to whether the debtor is a household head, are not shown in Appendix 1, but are used in the calculations below. California has two exemption systems and debtors are allowed to choose between them. Only one of the two systems is shown. Data in Appendix 1 are derived in part from Stephen Elias, Albin Renauer, and Robin Leonard, *How to File for Bankruptcy* appendix I (Nolo 4th ed 1993).

less for single filers. There is also a separate federal exemption, and fifteen states allow debtors who have filed for bankruptcy to choose between their state's exemption and the federal exemption. The federal homestead exemption as of 1992 was $7,500 for individuals and $15,000 for married couples.[18] Most states also exempt the cash value of life insurance, debtors' furniture and clothing, and miscellaneous other assets. Because few debtors have nonexempt assets, more than 90 percent of Chapter 7 cases involve no repayment at all, and the average repayment rate in Chapter 7 cases is less than 3 percent.[19]

The state and federal exemptions do not, by themselves, give debtors an incentive to file for bankruptcy. Suppose a debtor is considering whether to file for bankruptcy under Chapter 7 or to remain out of bankruptcy. If the debtor remains outside of bankruptcy, creditors can continue their debt collection efforts, including garnishing the debtor's wages and attaching the debtor's property. However, garnishment is limited by states' wage exemptions,[20] and attachment of property is limited by states' property exemptions.[21] If, instead, the debtor files for bankruptcy under Chapter 7, then creditors' debt collection efforts must terminate—no garnishment of wages or attachment of property is allowed.[22] The exemption for property in bankruptcy is either the same state exemption that applies outside of bankruptcy or the federal bankruptcy exemption.[23] Thus, by themselves, state bankruptcy exemptions do not give debtors an incentive to file for bankruptcy, because they are equally available outside of bankruptcy. Filing for bankruptcy yields an exemption advantage only in states that have relatively low exemptions and that allow

[18] 11 USC § 522(d)(1) (1994). Congress doubled the exemption levels in the Bankruptcy Reform Act of 1994, Title I § 108(d), Pub L No 103-394, 108 Stat 4106, 4111-12, codified at 11 USC § 522(d)(5) (1994).

[19] See Michael J. Herbert and Domenic E. Pacitti, *Down and Out in Richmond, Virginia*, 22 U Richmond L Rev 303, 311, 315-16 (1988) (finding that in Richmond, Virginia, only 3.2 percent of unsecured claims were paid); Michelle J. White, *Personal Bankruptcy Under the 1978 Bankruptcy Code: An Economic Analysis*, 63 Ind L J 1, 38-39 (1987-88) (finding that only 0.3 percent of priority claims and 3 percent of unsecured claims received payment).

[20] Garnishment also is limited by a mandatory federal exemption equal to thirty times the federal minimum hourly wage per week, or 75 percent of net earnings, whichever is greater. 15 USC § 1673(a) (1994).

[21] These property exemptions apply outside of bankruptcy as well as within. Thus if an unsecured creditor attaches a debtor's house, the mortgage holder(s) is paid off first, and then the debtor receives an amount up to the state's homestead exemption. The unsecured creditor is paid only from what remains, if anything.

[22] 11 USC § 362(a).

[23] The federal exemption is available only in states that have not "opted out." 11 USC § 522(b)(1).

debtors in bankruptcy to choose the more generous federal exemption.

However, while filing for bankruptcy generally yields no advantage in terms of the amount of property exempted, the package of other benefits available in bankruptcy—especially the automatic stay and the discharge of debts—makes bankruptcy attractive.[24] Because all aspects of the bankruptcy package other than the property exemption are uniform across states, the incentive to file for bankruptcy is stronger for debtors who live in states that have more generous property exemptions. For example, suppose there are two debtors, both of whom have the same wages, unsecured debts of $25,000, and $10,000 in a bank account. Neither debtor owns a house. Creditors are regularly harassing both debtors with threatening telephone calls and have begun garnishing their wages. Suppose one debtor lives in a northern state that has no personal property exemption, while the other lives in a southern state that has a personal property exemption of $15,000. Both states allow creditors to garnish 25 percent of debtors' wages. If the debtor who lives in the northern state files for bankruptcy under Chapter 7, the telephone calls from creditors and the garnishment of her wages will end, but she will have to turn over her entire bank account to the bankruptcy trustee for distribution to creditors. If she instead avoids bankruptcy, the threatening phone calls and the wage garnishment will continue, and she may still eventually lose her bank account to creditors. Whether she gains from filing for bankruptcy depends on how high her wages are and on her prediction of whether creditors will find her bank account. Now consider the debtor who lives in the southern state. If she files for bankruptcy, then not only would the telephone calls from creditors and the wage garnishment end, but in addition, she would keep her entire bank account. Alternatively, if she avoids bankruptcy, her bank account would still be exempt, but her wages would continue to be garnished and she would continue to receive the threatening telephone calls. Thus, bankruptcy is a win-win situation for the southerner. Because of her state's generous personal property exemption, filing for bankruptcy allows her simultaneously to avoid wage garnishment and the collection efforts and to protect her bank account. By contrast, because of her state's lack of a per-

[24] Another advantage of filing for bankruptcy is that once they file, debtors who have converted assets from useful nonexempt forms to less useful exempt forms can undo the conversion and therefore use the assets more efficiently. Outside of bankruptcy, assets must remain in the less useful exempt form because, otherwise, creditors could attach them. I am grateful to Ted Eisenberg for pointing this out.

sonal property exemption, the northerner is only able to stop garnishment and the collection efforts at the price of "losing" her bank account to the trustee.[25]

On the cost side, debtors who file for bankruptcy must pay the bankruptcy court filing fee[26] and the cost of legal advice. They also must bear the possible costs of losing access to credit in the future and incurring the disapproval of friends and relatives for having failed to meet their obligation to repay.

The other bankruptcy procedure for individuals is Chapter 13, intended for debtors with regular incomes. Under Chapter 13, debtors keep all of their assets, but propose a plan to repay part of their debts from future income over three to five years.[27] Debtors' repayment plans must pay unsecured creditors no less than what they would have received if the debtor had filed under Chapter 7.[28] Only the bankruptcy judge must confirm the plan; unsecured creditors cannot prevent Chapter 13 plans from being adopted.[29] If the trustee or an unsecured creditor who is not being paid in full under a repayment plan objects to confirmation, then all of the debtor's disposable income must be used for repayment.[30] However, creditors rarely object to Chapter 13 plans. It is costly for them to make a court appearance, and they rarely have a sufficient financial stake to make it worthwhile.

Because debtors have the right to choose between Chapters 7 and 13,[31] their willingness to select Chapter 13 (and thus be forced to repay some debts with future income) is determined by the value of the nonexempt assets that they would lose if they filed under Chapter 7. For example, a debtor who has $5,000 in nonexempt assets would only be willing to pay up to the equivalent of $5,000 from future wages under a Chapter 13 repayment plan. In contrast, a debtor with no nonexempt assets would be willing to pay only a token amount from future wages.

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[25] See generally Thomas H. Jackson, *The Logic and Limits of Bankruptcy Law* 226-28 (Harvard 1986) (discussing the "fresh start" policy).

[26] 28 USC § 1930 (1994).

[27] 11 USC §§ 1321-22. Plans can be no longer than three years unless the bankruptcy judge specifically approves a longer period; the maximum period allowed is five years. 11 USC § 1322(d).

[28] 11 USC § 1325(a)(4).

[29] Secured creditors, however, must approve the plan unless it meets certain conditions. This requirement, along with other statutory requirements for confirmation of Chapter 13 repayment plans, is specified in 11 USC § 1325.

[30] 11 USC § 1325(b)(1)(B).

[31] Creditors may file an involuntary petition to put a debtor into Chapter 7, 11 USC § 303(a) (1994), but the debtor may convert this to Chapter 13, 11 USC § 301 (1994). Involuntary petitions are unavailable for Chapter 13—this "wage earner" chapter must be chosen by the wage earner. 11 USC § 303(a).

Both Congress and some bankruptcy judges have demonstrated that they would prefer for Chapter 13 to be more widely used. Congress has attempted to make Chapter 13 more attractive to debtors by allowing certain types of debts to be discharged under Chapter 13 but not Chapter 7,[32] and by imposing no restriction on the frequency of filing under Chapter 13.[33] In some bankruptcy courts, judges encourage debtors to file under Chapter 13 and to propose repayment plans that involve repaying most or all of their debts.[34] Debtors often respond to these pressures by defaulting on their repayment plans after a few months.[35] When they default, they may either modify their plans to reduce the payments,[36] convert their cases to Chapter 7,[37] or file under Chapter 13 again.

II. WHY HAVE BANKRUPTCY?

The basic economic argument for having a personal bankruptcy procedure is that it provides risk-averse borrowers with insurance against the possibility that their income or wealth might fall before they have to repay their loans. As a result, borrowers and creditors share the risk of a fall in borrowers' income or wealth. However, the cost of having a personal bankruptcy procedure is that it encourages some borrowers to take advantage of the system. Their behavior makes the rest of the borrowing population worse off.[38] The following analysis illustrates the bene-

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[32] 11 USC §§ 523(a), 1328(a) (1994).

[33] See *In re Baker*, 736 F2d 481, 481 (8th Cir 1984) (holding that restrictions on repeated filings provided in 11 USC § 727(a) apply only to Chapter 7 proceedings). See also HR Rep No 95-595, 95th Cong, 1st Sess 118 (1977), reprinted in 1978 USCCAN 5963, 6078-79 (advocating legislation that promotes Chapter 13 over Chapter 7).

[34] See Teresa A. Sullivan, Elizabeth Warren, and Jay Lawrence Westbrook, *As We Forgive Our Debtors: Bankruptcy and Consumer Credit in America* 248-49 (Oxford 1989). A recent survey of lawyers reports large variations across states in both the proportion of debtors filing under Chapter 13 and the proposed repayment rates under Chapter 13 repayment plans. See Jean Braucher, *Lawyers and Consumer Bankruptcy: One Code, Many Cultures*, 67 Am Bankr L J 501, 518-21, 530-37 (1993). Another study reports that, in the bankruptcy court in the Western District of Texas, approximately 84 percent of debtors who filed under Chapter 13 promised to repay all of their debts. However, only 27 percent of such debtors in the Southern District of Texas made the same claim. See Teresa A. Sullivan, Elizabeth Warren, and Jay Lawrence Westbrook, *The Persistence of Local Legal Culture: Twenty Years of Evidence from the Federal Bankruptcy Courts*, 17 Harv J L & Pub Pol 801, 833 (1994).

[35] In a sample of Chapter 13 repayment plans, one study estimated that debtors failed to complete two-thirds of the plans. See Sullivan, Warren, and Westbrook, *As We Forgive Our Debtors* at 217.

[36] 11 USC § 1329.

[37] 11 USC § 1307(a).

[38] Theodore Eisenberg and Thomas Jackson both discuss justifications for bankruptcy based on efficient risk bearing. See Theodore Eisenberg, *Bankruptcy Law in Perspective*,

fits and costs of either having no bankruptcy procedure or having alternative bankruptcy procedures that provide intermediate versus high levels of insurance.

A. Assumptions

Assume that there are two types of households, Type A and Type B. Type A households would only file for bankruptcy if some misfortune occurs that causes them to become financially distressed. Events such as job loss, serious illness, or divorce would be examples.[39] Type As do not "plan for" bankruptcy, and they are assumed to be risk averse. Type B households, in contrast, plan in advance to take advantage of the possibility of bankruptcy in the same way that many households plan in advance to reduce their tax liability. Type Bs are more likely to file for bankruptcy as the financial benefit from filing increases.[40]

To start with, suppose all households are Type As. Suppose they all borrow $12,000 this period and promise to repay the debt plus interest next period. They have no other debt. Their finan-

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28 UCLA L Rev 953, 981-83 (1981) (describing the economic theory of efficient risk allocation in the context of bankruptcy law); Jackson, *Logic and Limits* at 228-32 (cited in note 25) (critiquing the standard economic theory). Jackson also discusses other justifications for bankruptcy, including the fact that borrowers systematically underestimate the risk of a fall in their wealth or income, the fact that borrowers who are forced to repay debt even when their wealth or income is low impose costs on their families, and the fact that borrowers may weight their current preferences too heavily relative to their future preferences when they borrow. Jackson, *Logic and Limits* at 232-48 (cited in note 25). Samuel Rea argues that creditors are efficient insurers of income fluctuations because they are specialists in monitoring borrowers' asset positions. Samuel A. Rea, Jr., *Arm-Breaking, Consumer Credit, and Personal Bankruptcy*, 22 Econ Inq 188, 191-92 (1984). Jackson and Rea also discuss the possibility of borrowers taking advantage of the availability of discharge of debt in bankruptcy. See Jackson, *Logic and Limits* at 230-32 (cited in note 25); Rea, 22 Econ Inq at 205-06. Eric Posner argues that, in the absence of bankruptcy, borrowers would borrow too much because public safety net programs prevent their incomes from falling below a set minimum level. A justification for bankruptcy is therefore that it gives creditors an incentive to restrict lending because they, rather than the government, bear the cost of default. Eric A. Posner, *Contract Law in the Welfare State: A Defense of the Unconscionability Doctrine, Usury Laws, and the Related Limitations on the Freedom to Contract*, 24 J Legal Stud 283, 307-08 (1995).

[39] Teresa Sullivan, Elizabeth Warren, and Jay Westbrook argue that most bankruptcies occur for these reasons, combined with irresponsible behavior by creditors who offer "credit far beyond any reasonable prospect of repayment." Sullivan, Warren, and Westbrook, *As We Forgive Our Debtors* at 332 (cited in note 34). See also Teresa A. Sullivan, Elizabeth Warren, and Jay Lawrence Westbrook, *Consumer Debtors Ten Years Later: A Financial Comparison of Consumer Bankrupts 1981-1991*, 68 Am Bankr L J 121, 126-40 (1994) (arguing that the financial characteristics of debtors in bankruptcy remained unchanged between the early 1980s and the early 1990s).

[40] Type B households are assumed to behave according to standard economic models. See generally Michelle J. White, *Economic Versus Sociological Approaches to Legal Research: The Case of Bankruptcy*, 25 L & Soc Rev 685 (1991), for a discussion of the economic versus sociological views of bankruptcy.

cial situation this period is known with certainty, but for the next period their financial resources (including income) are uncertain. Specifically, they will have $60,000 with probability .95, $45,000 with probability .03, and $30,000 with probability .02. The worst outcome might correspond to the household's main worker losing her job, and the intermediate outcome might correspond to someone in the household becoming seriously ill but recovering within a few months.

Lenders are assumed to be risk neutral and are therefore willing to lend whenever the present value of the expected amount that borrowers will repay covers lenders' opportunity cost of the funds.

B. No Bankruptcy Procedure

Suppose first that there is no bankruptcy procedure, so Household A always repays in full. Because Household A always repays, it can borrow at an interest rate equal to lenders' opportunity cost of funds, say 4 percent. Because Household A borrows $12,000, in the next period it will have $47,520 (= $60,000 - ($12,000 * 1.04)) with probability .95, $32,520 with probability .03, and $17,520 with probability .02. (This is shown in Line 1 of Table 1.) Clearly, Household A faces a great deal of uncertainty.

C. A Bankruptcy Procedure with an Exemption Level of $30,000

Suppose next that there is a bankruptcy procedure with an exemption level of $30,000, which is approximately the median bankruptcy exemption for the fifty states if the various exemption categories are combined. All debtors receive this $30,000 exemption; it is not limited to certain types of property. In addition to this general exemption, assume that there are special exemptions such as the homestead exemption, as under current law. It is assumed that Type As only qualify for the general $30,000 exemption, because they do not plan for bankruptcy and therefore will not have made any effort to move assets into the categories qualifying for special exemptions.[41]

When the worst financial outcome occurs, Household A will file for bankruptcy and its debt will be discharged. Because Household A now will repay the loan only 98 percent of the time, lenders will raise the interest rate from 4 percent to 6.12 percent, which is now the minimum rate at which they are willing to

[41] This assumption is obviously imperfect, since Type As would sometimes hold assets falling within the special exemptions even without planning. For simplicity, I assume that this does not happen, so that Type As only get the general exemption.

lend.[42] As a result of this higher interest rate, in the next period, A will have $47,266 (= $60,000 - ($12,000 * 1.0612)) with probability .95, $32,266 with probability .03, and $30,000 with probability .02.[43] (See Line 2 of Table 1.)

Introducing bankruptcy causes Household A to have much more wealth in the worst outcome scenario and slightly less in the intermediate and best outcome scenarios (due to the higher interest rate), while its expected wealth remains unchanged. This redistribution of Household A's wealth makes its financial situation less risky; because A is risk averse, it is better off.[44] Under the assumption that all households are Type A, the effect of introducing bankruptcy is that the Type A households who experience their intermediate or best outcomes will subsidize other Type A households who experience their worst outcomes.

Now suppose that there are both Type A and Type B households. Both types of households have the same financial situation this period and face the same set of outcomes next period. Because Type Bs plan in advance for bankruptcy, they not only take advantage of the general $30,000 exemption, but also are assumed to convert one-third of their wealth from nonexempt to exempt status[45] to take advantage of the specialized exemptions.[46] Thus, when the exemption level is $30,000, Type Bs file for bankruptcy when either the worst or the intermediate outcome occurs. This is because when their wealth is $45,000, they convert one-third of it, or $15,000, to exempt status using the specialized exemption. Therefore, all of their wealth is exempt in bankruptcy. Type As, in contrast, file for bankruptcy only when the worst out-

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[42] Because households only repay the debt with probability .98, lenders must receive a return of 1.04 / .98 = 1.0612 (in other words, 6.12 percent interest) in order to be willing to lend.

[43] The wealth in worst case is now $30,000 because A will file for bankruptcy and receive the $30,000 exemption.

[44] Risk averse households have declining marginal utility of wealth, so that their marginal utility of wealth is high when they have little wealth and low when they have high wealth. Therefore, transferring a given amount from states when they have high wealth to states when they have low wealth makes them better off.

[45] In addition to converting assets to exempt categories, Type B households might pursue other strategies to shield property from bankruptcy. For a discussion of possible strategies, see notes 70-80 and accompanying text.

[46] As an example, suppose Type As and Type Bs both experience their intermediate outcomes. As part of their wealth, suppose both types have financial assets of $15,000 that would not be within any specialized exemption category. The Type Bs convert the $15,000 into homestead equity by paying off part of their mortgages, but Type As do not. Because they make this conversion, Type Bs can benefit from bankruptcy, discharging their debts and keeping all of their assets. Because Type As do not convert the $15,000 to exempt property, they would not benefit from bankruptcy and therefore remain liable for their debts. The next Part discusses other strategies that have the same effect.

come occurs. Because they did not "plan" for bankruptcy, they will only take advantage of the generalized $30,000 exemption.

Suppose, conservatively, that 2 percent of households are Type Bs and 98 percent are Type As. Suppose also that lenders know these overall figures, but cannot identify individual households' types at the time they make loans, so that they must lend the same amount at the same interest rate to both types. Because the introduction of Type Bs causes the overall probability of default to rise slightly, from 2 percent to 2.06 percent (= 1 - (.98 * .98) - (.02 * .95)),[47] lenders will raise the interest rate from 6.12 percent to 6.19 percent.[48]

How does the existence of Type B households affect Type As? Line 3a of Table 1 shows that having a bankruptcy system with an exemption level of $30,000 still raises Type As' wealth in the worst outcome, from $17,520 to $30,000. But because the presence of Type Bs causes the interest rate to rise, Type As' wealth in the intermediate outcome is now $32,257 (= $45,000 - ($12,000 * 1.0619)), and $47,257 in the best outcome, compared to $32,266 and $47,266, respectively, when there were no Type Bs. Thus Type As' wealth falls by $9 in both the intermediate and the best outcomes. This cost is low relative to the benefit in the worst outcome, so that Type As still gain overall from having bankruptcy. Line 3b of Table 1 shows that Type Bs have $45,000 when the intermediate outcome occurs, because they file for bankruptcy and all of their wealth is exempt (the $30,000 general exemption plus the additional $15,000 that they converted to take advantage of a specialized exemption). Type Bs' expected wealth of $46,844 exceeds Type As' expected wealth of $46,462 by $382.

D. A Bankruptcy Procedure with an Exemption Level of $45,000

Raising the bankruptcy exemption level from $30,000 to $45,000 makes Type As better off in some ways, but worse off in others. In this system, Type As file for bankruptcy when either their worst or their intermediate outcome occurs, but Type Bs always file for bankruptcy.[49] Because the bankruptcy system is now

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[47] Type As, which constitute 98 percent of the population, will repay 98 percent of the time, which represents all situations in which they do not encounter the worst outcome. Type Bs, which constitute 2 percent of the population, will only repay 95 percent of the time, because they will file for bankruptcy whenever they encounter the worst or the intermediate outcome.

[48] Because households now only repay with probability .9794 (= 1 - .0206), lenders must receive a return of 1.0619 (= 1.04 / .9794), or 6.19 percent interest, in order to be willing to lend.

[49] Even assuming that they have wealth of $60,000, Type Bs can shelter $45,000 with the general exemption, and will have moved the rest into protected forms.

so favorable for Type Bs, Type As' expected wealth would increase from $45,954 to $58,950—or by $12,996—if they shifted from Type A to Type B behavior (Lines 4a and 4b of Table 1).[50] Given this strong incentive, some Type As are assumed to shift and, as a result, the proportion of Type Bs in the population is assumed to rise from 2 percent to 4 percent. The probability of default therefore rises from 2.06 percent to 8.8 percent (= 1 - (.96 * .95) - (.04 * 0))[51] when the bankruptcy exemption level increases from $30,000 to $45,000. Lenders respond by raising the interest rate from 6.19 percent to 14 percent.[52]

Comparing Type As' situation when the bankruptcy exemption level is $45,000 versus $30,000 (Line 4a versus Line 3a in Table 1), the increase in the exemption level causes Type As' wealth to rise from $32,257 to $45,000 in the intermediate outcome, but to fall from $47,257 to $46,320 in the best outcome. Thus raising the exemption level in bankruptcy makes Type As better off by insuring them in both the worst and the intermediate outcomes, rather than just in the worst outcome. However, it makes them worse off in the best outcome, because they must pay much higher interest rates to compensate lenders for the increase in the number of Type Bs (adverse selection) and for the higher default rates of both types (moral hazard). This is the basic tradeoff in bankruptcy.

E. Implications for Determining the Optimal Bankruptcy System

How does this tradeoff affect the characteristics of the optimal bankruptcy system? The preceding analysis suggests that there should be some exemption, but that the level should not be too high. Table 1 allows us to compare the situation of Type A borrowers under three different bankruptcy systems: (1) no bankruptcy (Line 1); (2) a bankruptcy system with a medium exemption level (Line 3a); and (3) a bankruptcy system with a high exemption level (Line 4a). When a bankruptcy system with a medium exemption level is compared to a system with no bankruptcy, Type A households are made better off because their fi-

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[50] If Type As do not shift to Type B behavior when the exemption rises, their expected wealth would fall from $46,462 to $45,954 (because of the combined effect of the increase in the exemption and the increase in the interest rate).

[51] Type As, which now constitute 96 percent of the population, will default 5 percent of the time—when they encounter their worst and intermediate outcomes. Type Bs, which now constitute 4 percent of the population, will always default.

[52] Because households now repay with probability .912 (= 1 - .088), lenders must receive a return of 1.14 (= 1.04 / .912), or 14 percent interest, in order to be willing to lend.

nancial situation in the worst outcome improves dramatically, while their cost in reduced expected wealth is only $8. Raising the bankruptcy exemption from a medium to a high level provides an additional benefit to Type As because their financial situation in the intermediate outcome improves, but the cost is a reduction in their expected wealth of $508. Thus the shift from no bankruptcy to a bankruptcy system with an intermediate exemption level provides Type As with a large reduction in uncertainty at a very small cost. However, the shift from an intermediate to a high exemption level in bankruptcy provides Type As with a smaller reduction in uncertainty at a much higher cost. This result suggests that there is an efficiency gain from introducing a bankruptcy system, but there also is an efficiency loss from having a high rather than an intermediate bankruptcy exemption level. Although this example inevitably involves many assumptions, the declining benefit and rising cost of bankruptcy as the exemption level rises is in fact quite general.[53]

In the example, it was assumed that households are more likely to shift from Type A to Type B behavior when the financial incentive to do so increases. Because Type Bs are more likely to file for bankruptcy than Type As, households' probability of filing for bankruptcy is therefore higher when the financial gain from filing is greater. Several studies have tested the hypothesis that households respond to financial incentives in making their bankruptcy decisions and have found that the bankruptcy filing rate is positively and significantly related to the generosity of states' bankruptcy exemptions.[54] Assuming that households are more

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[53] If having a system of insurance that discharges debt when households' wealth turns out to be low is economically efficient, a relevant issue is why the private market does not provide it. If private insurers offered this type of insurance, they would presumably attract many Type B households as buyers. The high default rate would force insurers to raise premiums, causing many Type As to decide not to buy the insurance. As a result, insurers' only alternative may be to stop selling this type of insurance. Making this type of insurance mandatory through the bankruptcy system does not alter the behavior of Type Bs, but it does spread their cost over a large number of Type As, because Type As cannot opt out of buying insurance when it is provided by the bankruptcy system. See Rea, 22 Econ Inq at 188-92 (cited in note 38), for a discussion of problems with private credit insurance and institutions, such as "arm-breaking" or harassment of borrowers, that would improve the market for this type of insurance.

[54] See White, 63 Ind L J at 45-47 (cited in note 19) (finding that the number of Chapter 7 bankruptcy filings per capita was positively and significantly related to the bankruptcy exemption level). See also Scott Fay, Erik Hurst, and Michelle J. White, *The Bankruptcy Decision: Does Stigma Matter?* 19-27 (Jan 1998) (unpublished manuscript on file with U Chi L Rev) (using individual household data and finding that the probability that individual households will file for bankruptcy increases when their financial benefit from filing rises, and finding that the relationship is statistically significant). However, two studies found contrary conclusions. See F.H. Buckley and Margaret F. Brinig, *The Bankruptcy*

likely to file for bankruptcy when the bankruptcy exemption level is higher, the terms under which households borrow will also depend on the bankruptcy exemption level, as the example reflects. As the exemption level rises, risk averse households will demand more credit because they are more fully insured against the consequences of having low wealth in the future. Creditors, however, are less willing to lend, because the probability of default is now higher. A recent study of credit markets showed that the probability of an otherwise identical consumer being turned down for a loan is 5.5 percentage points higher if the consumer lives in a state with an unlimited homestead exemption, compared to a state with a low exemption level.[55] In addition, otherwise identical consumers who have not been turned down for loans would hold an additional $16,000 in credit if they lived in a state with a low, rather than high, bankruptcy exemption level.[56] Thus another cost of having a bankruptcy system with an excessively high exemption level is that it reduces access to credit by all consumers—not just by those who are bad risks.

To summarize, the United States bankruptcy system provides what it was intended to provide—insurance for risk averse Type A borrowers that makes them better off when financial setbacks occur. However, it also provides something unintended—a subsidy from Type A to Type B borrowers who take advantage of bankruptcy by filing even when they are not in financial distress. The system also reduces borrowers' access to credit relative to a

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Puzzle, 27 J Legal Stud 187, 204-05 (1998) (finding, in an empirical study, that bankruptcy filing rates were negatively related to exemption levels); William J. Woodward and Richard S. Woodward, *Exemptions as an Incentive to Voluntary Bankruptcy: An Empirical Study*, 88 Comm L J 309, 316 (1983) (finding that bankruptcy filing rates were unrelated to certain features of state exemptions). The latter study was flawed because it measured the strength of the incentive to file for bankruptcy by examining whether the state's exemption level was higher or the same in bankruptcy versus outside of bankruptcy. Woodward and Woodward, 88 Comm L J at 313. Thus, states such as Texas were categorized as not providing debtors with an incentive to file for bankruptcy, even though Texas has a very generous exemption; in contrast, Connecticut was categorized as providing debtors with a strong incentive to file for bankruptcy even though its exemption is low, because it allows debtors in bankruptcy to use the federal exemption. Id at 319. See text accompanying note 18 for a discussion of the availability of the federal exemption. The main difficulty in answering the question of whether households react to financial incentives in making their bankruptcy decisions is that, until very recently, no data on individual households existed in which the households were asked if they had ever filed for bankruptcy. For a review of the literature evaluating the proposition that debtors react to incentives in making their bankruptcy decisions and the models used in such evaluations, see Note, *A Reformed Model of Consumer Bankruptcy*, 109 Harv L Rev 1338, 1339-53 (1996).

[55] Reint Gropp, John Karl Scholz, and Michelle J. White, *Personal Bankruptcy and Credit Supply and Demand*, 62 Q J Econ 217, 234 (1997).

[56] Id at 240-42.

system without a bankruptcy procedure, particularly in those states that have the highest exemption levels. Thus, while there is a strong economic argument for having a bankruptcy system, the gain from raising the exemption level diminishes and the costs rise as the exemption level gets higher. The best exemption level is greater than zero, but not too high.[57]

III. WHAT PROPORTION OF HOUSEHOLDS WOULD BENEFIT FROM BANKRUPTCY?

This Part analyzes the actual system of bankruptcy exemptions in the United States and the incentives it gives households both to file for bankruptcy and to shift from Type A to Type B behavior. When households file for bankruptcy under Chapter 7, their immediate financial benefit is the value of debt that is discharged, and their immediate cost is the value of nonexempt assets, if any, that they must turn over to the bankruptcy court plus the costs of filing. The net financial benefit of bankruptcy is the difference between these two.[58] As discussed earlier, the rules of Chapter 7 generally determine debtors' net benefit from filing for bankruptcy under both Chapters 7 and 13, because debtors will not file under Chapter 13 if they would benefit more from filing under Chapter 7.[59] As a result, this analysis focuses on Chapter 7.

A. Method of Analysis

In order to calculate the proportion of households that would benefit from bankruptcy, this analysis uses the 1992 Survey of Consumer Finances ("SCF"), which is produced by the Board of Governors of the Federal Reserve System. The SCF asks a representative sample of 3,900 United States households detailed questions concerning their assets and liabilities.[60]

As an example of the procedure used in the calculations, suppose a household lives in Illinois, which as of 1992 had exemptions of $7,500 for homestead equity, $2,000 for personal property, $1,200 for equity in vehicles, and an unlimited exemp-

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[57] This result is proved in Fay, Hurst, and White, *The Bankruptcy Decision* appendix (cited in note 54).

[58] This calculation does not include the future costs of filing for bankruptcy, such as the cost of reduced access to credit and the costs of bearing friends' and relatives' disapproval.

[59] See text accompanying note 31.

[60] The SCF does not ask households whether they have filed for bankruptcy. See Arthur B. Kennickell and Martha Starr-McCluer, *Changes in Family Finances from 1989 to 1992: Evidence from the Survey of Consumer Finances*, 80 Fed Reserve Bull 861 (1994), for a discussion of the SCF and its results.

tion for retirement accounts.[61] For each household, the value of all assets not covered by any of the Illinois exemptions is added up. Illinois—like most states—allows married couples to double their exemptions when both spouses file for bankruptcy, so the exemption is adjusted depending on whether the household contains a married couple. Next it is determined whether each debt would be discharged in bankruptcy, and the value of all debts that would be discharged is added up. The net benefit from filing for bankruptcy is then calculated by determining the difference between the amount of debts discharged in bankruptcy, and the value of the nonexempt assets the household must give to the bankruptcy court.[62] Illinois does not allow debtors to choose between its exemption and the federal bankruptcy exemption. (For states that do allow use of the federal exemption, the benefits of filing for bankruptcy under the state and the federal exemptions are calculated separately, and the exemption that generates the largest benefit is used.) Because the SCF does not identify state of residence for individual households in the data set, different states' bankruptcy exemptions are analyzed by assuming that each applies to the entire sample. Therefore, to fix the proportion of households that would benefit from filing for bankruptcy under the Illinois exemption, these calculations are repeated for each household in the sample and then the proportion of households that would have a positive net benefit if they filed for bankruptcy is determined. Finally, the dollar value of the median net benefit for those households that have a positive net benefit from bankruptcy is calculated.[63]

This Article reports results for eleven states and for the United States overall. The eleven states are selected both to include the largest states and to cover a range of exemption levels.

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[61] See Appendix 1.

[62] The is the net financial benefit of bankruptcy, as explained in text accompanying note 58.

[63] Some states increase certain bankruptcy exemptions if the individual or couple filing for bankruptcy is elderly, has dependent children, or is a renter. See, for example, 14 Me Rev Stat Ann § 4422(1) (West Supp 1997) (providing that the homestead exemption of $12,500 is increased to $60,000 if the debtor or a dependent of the debtor is over sixty years old or mentally or physically disabled); Va Code § 34-4 (Michie 1996) (providing for a homestead exemption of $5,000 plus $500 for each dependent). In 1992, the federal bankruptcy exemption allowed unused homestead exemption amounts to be used to shelter nonexempt personal property, up to $3,750 for individual filers or $7,500 for married filers. 11 USC § 522(d)(5) (1994). In 1993, Congress changed these amounts to $7,500 and $15,000 respectively, in the Bankruptcy Reform Act of 1994, Title I § 108(d)(5), Pub L No 103-394, 108 Stat 4112, codified at 11 USC § 522(d)(5) (1994). The calculations take account of special provisions of this type if the relevant data to determine whether the household qualifies is given in the SCF.

Texas and Florida both have unlimited homestead exemptions.[64] Massachusetts and Mississippi both have generous, but not unlimited, homestead exemptions: $100,000 in Massachusetts[65] and $75,000 for individual or $150,000 for married filers in Mississippi.[66] Massachusetts, Michigan, New Jersey, and Texas allow their residents to choose between the state and the federal bankruptcy exemptions. Ohio and Louisiana are both low exemption states.[67]

B. Base Case Results

Column 1 of Table 2 gives the proportion of households that would benefit financially if they filed for bankruptcy under each of the eleven states' bankruptcy exemptions and for the United States overall.[68] If all households in the sample were subject to the Michigan bankruptcy exemption, then the proportion that would benefit financially from filing for bankruptcy is .14. The lowest and highest figures are for the Louisiana and Texas exemptions—.10 and .32, respectively—and the overall figure for the United States is .17. In general, the more generous the state's bankruptcy exemptions, the higher the proportion of households that would benefit financially from bankruptcy.

In Column 2, the calculations are repeated but a figure representing the out-of-pocket cost of filing for bankruptcy is subtracted from the net financial benefit of bankruptcy for each household. The cost of filing is assumed to be $350, of which $150 is the bankruptcy court filing fee and $200 represents a minimum figure for the cost of legal advice.[69] The results show that when the costs of filing for bankruptcy are taken into account, the overall proportion of households that would benefit financially from bankruptcy drops from .17 to .15, or about two percentage points.

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[64] See Tex Prop Code Ann § 41.001(a) (Vernon 1984 & Supp 1995); Fla Const, Art 10, § 4(a)(1); Fla Stat Ann I § 222.01 (West 1989).

[65] Mass Ann Laws ch 188, § 1 (Michie/Law Co-op Supp 1994).

[66] Miss Code § 85-3-21 (1991).

[67] See Appendix 1 for the exemptions of all fifty states.

[68] The figures for the United States overall are calculated based on the results for the eleven representative states, using actual population weights.

[69] Bankruptcy filing fees are set forth in 28 USC § 1930 (1994), and the accompanying Judicial Conference Schedule of Fees. The figure for legal advice is based on bankruptcy lawyers' advertisements. Denise M. Topolnicki and Elizabeth M. Macdonald, *The Bankruptcy Bonanza*, Money 82, 85 (Aug 1993) (discussing a bankruptcy lawyer who advertises a "Bankruptcy Express" service for $350). Advertisements by bankruptcy lawyers also were observed in the Chicago subway proclaiming "Get out from under your debts!" and giving the figure of $200 for legal costs. This probably represents the cost of the lawyer filling out the bankruptcy court forms and advising debtors how to represent themselves in bankruptcy.

Table 3 gives the median dollar benefit of filing for bankruptcy for those households that have a positive net benefit of filing. All dollar figures are in 1992 dollars. The median figures do not vary greatly across states. The range is from $1,400 in New York to $1,950 in Florida, with an overall median for the United States of $1,650. These figures understate the benefit of filing for bankruptcy, both because they are in 1992 dollars and because when households actually file for bankruptcy, they probably understate the value of their assets, which reduces the calculated benefit figures.

C. Strategic Behavior

Part II assumed that Type B households planned in advance for bankruptcy and followed strategies that would increase their financial benefit if they filed. How is this done in practice? One method, discussed above,[70] is to shift assets from nonexempt to exempt categories. Because the homestead exemption is usually the largest bankruptcy exemption, debtors often can increase their financial benefit by selling nonexempt assets such as financial accounts and vacation homes and using the proceeds to reduce the mortgages on their principal residences. Call this "Strategy I." Column 3 of Table 2 gives the proportion of households that would benefit from bankruptcy after following Strategy I if doing so would be beneficial. The largest increases relative to the base case occur in states that have high or unlimited homestead exemptions. In Texas, the proportion of households that would benefit from bankruptcy rises from .32 in the base case to .36 when households follow Strategy I. For the United States overall, the increase is from .17 to .20.

Even if debtors paid off their mortgages completely, some of them still would have nonexempt property and home equity less than the homestead exemption. These debtors can benefit further by using their nonexempt assets to pay for improvements to their principal residences[71] or by buying and moving to more valuable principal residences in the same state. Under "Strategy II," debtors are assumed to sell nonexempt assets until they exhaust these assets or have used up their homestead exemptions. Column 4 of Table 2 shows that, using Strategy II, the proportion of

[70] See notes 45-46 and accompanying text.

[71] See Alan N. Resnick, *Prudent Planning or Fraudulent Transfer? The Use of Nonexempt Assets to Purchase or Improve Exempt Property on the Eve of Bankruptcy*, 85 Comm L J 238, 245-47 (1980) (discussing cases in which the debtor improved his home, made mortgage payments, or invested in exempted assets while preparing to file for bankruptcy and the courts found that the investments in the property were exempt).

households that benefit from bankruptcy under the Texas exemption is .42 and the proportion that benefit under the Mississippi exemption is .41. For the United States overall, the figure is .24.

Another strategy involves debtors borrowing more on an unsecured basis and using the proceeds to purchase goods for immediate consumption (such as vacations and clothing) or to reduce their nondischargeable debt. When debtors file for bankruptcy, the new debt will be discharged along with older unsecured debt.[72] The SCF gives data on households' existing, unused lines of credit. "Strategy III" assumes that debtors borrow the maximum amount on all their unsecured lines of credit before filing for bankruptcy, but do not obtain new lines of credit and do not engage in the other types of strategic behavior already discussed. Column 5 of Table 2 gives the results. The largest increase occurs in Texas, because it has a high exemption for personal property. The proportion of households that benefit from filing for bankruptcy under the Texas exemption rises from .32 in the base case to .44 under Strategy III. For the United States overall, the increase is from .17 to .24. These figures would be even higher if they included loans obtained from new sources, such as new credit cards.[73]

Households also might pursue all of these strategies simultaneously. Column 6 of Table 2 shows that in this case, the proportion of households that would benefit financially from filing for bankruptcy using the Texas exemption is .61, and over half would benefit using the Mississippi exemption. The overall figure for the United States is .34. Column 2 of Table 3 shows the median dollar benefit figures if households pursued all strategies simultaneously. In a low exemption state such as Ohio, the median benefit figure increases from $1,585 in the base case to $2,770, or by about 75 percent. In states with generous exemptions, such as Florida, Mississippi, and Texas, the median benefit figures increase three- to four-fold. In Texas, for example, the

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[72] The Bankruptcy Code does not allow discharge of certain cash advances or debts to purchase luxury goods or services that were incurred less than sixty days before a Chapter 7 bankruptcy filing. 11 USC § 523(a)(2)(C). However, both types of debts can be discharged under Chapter 13. 11 USC § 1328(a). See also Janet Novack, *Debtors' Vision*, Forbes 45 (June 2, 1997) (showing that even if the debt was incurred shortly before the bankruptcy filing, bankruptcy courts routinely ignore the restrictions on discharge of debt in Chapter 7).

[73] See Lawrence Ponoroff and F. Stephen Knippenberg, *Debtors Who Convert their Assets on the Eve of Bankruptcy: Villains or Victims of the Fresh Start?*, 70 NYU L Rev 235, 269-92, 315-24 (1995) (discussing cases in which the courts have denied debtors the gains from their prebankruptcy asset conversions and arguing that debtors have a right to engage in these conversions).

median benefit increases from $1,680 in the base case to $5,900 when all strategies are used.[74] Finally, households might both move to high exemption states such as Texas and pursue all of the strategies discussed here before filing for bankruptcy. In this case the overall proportion of households that would benefit from bankruptcy would be .61.[75]

There are still further strategies that Type B households could use to increase their financial benefit from bankruptcy. One is to transfer ownership of nonexempt assets to relatives, although the transfer must be made at least one year before the debtor files for bankruptcy.[76] Another strategy is for a debtor who receives an inheritance to arrange for the donor to put the property into a spendthrift trust. Trust assets are exempt in bankruptcy as long as state nonbankruptcy law prevents creditors from reaching the trust.[77] A third strategy is particularly useful to married couples who live in states that have low homestead exemptions. The couple can incur all its debts in the name of one of the spouses, but hold its principal residence in the form of tenancy by the entirety.[78] If only one spouse files for bankruptcy, equity in the home is exempt regardless of amount.[79] Some states also have high or unlimited exemptions for retirement accounts

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[74] The median benefit figures when all strategies are used would be higher if they were calculated based only on households that would benefit from bankruptcy even in the base case. They drop because they also include households that have a positive net benefit from bankruptcy only when they use the three strategies.

[75] As an example, Martin Siegel, an investment banker, purchased a $3.25 million dollar home in Florida when investors filed a civil lawsuit against him demanding $2.75 billion in damages. See Larry Rohter, *Rich Debtors Finding Shelter under a Populist Florida Law*, NY Times A1 (July 25, 1993). If the investors won their lawsuit, Mr. Siegel presumably intended to file for bankruptcy, in which case the judgment debt would be discharged, and his home would be exempt under Florida's unlimited homestead exemption.

[76] See 11 USC § 727(a)(2)(A) (denying a discharge to a debtor who transfers property within one year of the filing with the intent to hinder, delay, or defraud a creditor). See also 11 USC § 548 (1994) (allowing the trustee to "avoid" fraudulent transfers within one year of filing).

[77] 11 USC § 541(c)(2) (1994). Most states allow spendthrift trusts to include provisions that prohibit creditors from attaching trust assets. See *Black's Law Dictionary* 1400 (West 6th ed 1990). However, debtors cannot put their own assets in trust and then claim that the assets are exempt in bankruptcy. See *Shurley v Texas Commerce Bank—Austin*, 115 F3d 333, 338 (5th Cir), cert denied, 118 S Ct 444 (1997) (refusing to exempt the portion of a spendthrift trust comprised of assets that the debtor herself contributed).

[78] In a tenancy by the entirety, a husband and wife hold title to the whole property with a right of survivorship, so that upon the death of either, the other takes the whole. *Black's Law Dictionary* at 1465.

[79] 11 USC § 522(b)(2)(B) provides that property held in the form of tenancy by the entirety or joint tenancy is exempt in bankruptcy if it is exempt under applicable nonbankruptcy law. Sixteen states and the District of Columbia exempt from the debts of either spouse individually property held in a tenancy by the entirety. See Stephen Elias, Albin Renauer, and Robin Leonard, *How to File for Bankruptcy* appendix I (Nolo 5th ed 1995).

and life insurance. In these states, debtors can transfer nonexempt assets into retirement accounts or buy large life insurance policies.[80]

The Tables clearly show that the proportion of households that would benefit financially from bankruptcy is much higher than the proportion of households that actually file for bankruptcy.[81] While more than half of households could benefit from bankruptcy if they behaved strategically, in fact only about 8 percent of United States households actually filed for bankruptcy during the entire last decade.[82]

The implications of these figures for the number of households that are likely to file for bankruptcy in the future depends on the proportion of Type A and Type B households, which the SCF data do not allow us to identify. One extreme possibility is that all households are Type As, in which case households would file for bankruptcy only if they suffered some financial setback. In this situation, the bankruptcy filing rate would tend to remain constant unless something changes that increases the proportion of households suffering financial setbacks, such as a rise in the jobless rate or the divorce rate. Another possibility (admittedly extreme) is that all households are Type Bs. In this case, we would expect all households who would benefit financially from bankruptcy to file eventually, although it may take several years for all of them to learn about bankruptcy and act on the knowledge. This would create a large increase in the bankruptcy filing rate. Finally, an intermediate possibility is that the proportion of households who shift from Type A to Type B is currently low, but rising rapidly over time. As the bankruptcy rate rises, more households learn firsthand about bankruptcy from friends and relatives who have filed, or from advertisements of bankruptcy attorneys. They may hear that bankruptcy is simple, quick, and

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[80] Twenty-five states and the District of Columbia exempt life insurance proceeds if the policy contains a prohibition on its use to pay the beneficiary's creditors. See Elias, Renauer, and Leonard, *How to File for Bankruptcy* at appendix I (cited in note 79). Forty of the states listed in Appendix 1 have unlimited exemptions for retirement accounts. For a particularly egregious example, in which a physician attempted to get a discharge after converting $700,000 of assets to exempt insurance and annuity contracts, see *Norwest Bank Nebraska v Tveten*, 848 F2d 871, 872 (8th Cir 1988).

[81] Many of the households in the sample that would benefit financially from filing for bankruptcy are not financially distressed. Most United States households have little wealth and the wealth they do have is mainly in the form of retirement accounts and home equity, which are often exempt in bankruptcy. Lenders therefore lend based on borrowers' ability to repay from future income. If households file for bankruptcy, however, they cannot be forced to use their future incomes to repay their debts.

[82] See United States Bureau of the Census, *Statistical Abstract of the United States 1996* 545 table 847 (GPO 116th ed 1996).

favorable to debtors, and that it is easy to obtain post-bankruptcy credit.[83] Many of those who hear this message will change their previously negative attitude toward bankruptcy, causing the stigma of bankruptcy to fade. These factors suggest that the bankruptcy filing rate will continue to rise.[84]

D. Equity Effects of Bankruptcy

Not only is the bankruptcy system manipulable, it is manipulable in a distributionally troublesome way. To address distributional issues, we need a measure of households' financial well-being or ability to pay. The sum of net wealth (total assets minus total liabilities) plus three times annual household earnings provides a good measure. This distribution of financial well-being is then divided into deciles. Columns 1 and 2 of Table 4 show the proportion of households that would benefit from filing for bankruptcy for each of the odd-numbered deciles of the ability to pay distribution, using the Louisiana and Texas bankruptcy exemptions, respectively. Louisiana's exemption is used to represent a relatively low exemption, and Texas's exemption is used because it is the most generous. The results in Columns 1 and 2 are for the base case in which households do not behave strategically. They show that under the Louisiana exemption, the proportion of households that benefit from bankruptcy in the lowest decile of the ability to pay distribution is .23. The figure drops to .20 in the third decile, .12 in the fifth decile (the middle decile of the distribution), .03 in the seventh decile, and .01 in the ninth decile. Thus the proportion of households that benefit from bankruptcy declines as ability to pay increases. This result is equitable, because it means that households are less likely to gain from discharge of debt in bankruptcy as their ability to repay their debt increases. Under the more generous Texas exemption, the proportions of households in each decile that benefit from bankruptcy are much higher. Even as high as the seventh decile of the distribution, the proportion of households that would benefit from filing for bankruptcy in Texas is .31.

Columns 3 and 4 of Table 4 give the median dollar benefit

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[83] A survey of recent bankrupts found that 74 percent were able to obtain credit within a year after their bankruptcy filings. See Michael Staten, *The Impact of Post-Bankruptcy Credit on the Number of Personal Bankruptcies*, Working Paper No 58, Credit Research Center, Krannert Graduate School of Management, Purdue University (Jan 1993).

[84] See Kim Clark, *Why So Many Americans are Going Bankrupt*, Fortune 24 (Aug 4, 1997) (discussing bankruptcy in Memphis, Tennessee, which has the highest bankruptcy filing rate of any metropolitan area in the United States). Clark characterizes Memphis as having a "culture of bankruptcy," with little or no stigma attached to filing. Id at 25.

figures (among households for whom the benefit is positive) by decile for the two states. The median dollar benefit figures for Louisiana range from $760 in the lowest decile to $4,000 in the ninth decile, and for Texas the range is from $800 to $5,000. In both states, well-off households would benefit more from bankruptcy than poor households, because the former have more dischargeable debt. But equally well-off households benefit more from bankruptcy in Texas than in Louisiana, because the Texas bankruptcy exemption is more generous.

Columns 5 through 8 of Table 4 give the same figures when households use all of the strategies described in Part III.C above. Not surprisingly, more households benefit from bankruptcy in every decile of the distribution when they follow these strategies, and the median dollar benefits they receive also rise. Using the Texas exemption, the results are quite startling. *In all deciles above the lowest, more than 59 percent of households would benefit from filing for bankruptcy*. The median dollar benefit increases as ability to pay rises—from $1,200 in the lowest decile to $10,500 in the ninth decile. These results show that when households behave strategically and the bankruptcy exemption is generous, well-off households benefit far more from bankruptcy than households with a low ability to pay.

For a household in any particular decile, the benefit of shifting from nonstrategic (Type A) to strategic (Type B) behavior is the difference between the relevant figures in Columns 3 versus 7 of Table 4 (Louisiana), or Columns 4 versus 8 (Texas). For Texas households in the lowest decile, the incentive to shift is $400 (= $1,200 - $800), rising to $2,630 in decile 5 and $5,500 in decile 9. The incentives to adopt Type B behavior are similar for Louisiana. Thus the higher the ability to pay, the stronger is the incentive for households to shift from Type A to Type B behavior and escape responsibility for repaying their debts.

Several conclusions can be drawn from these figures. First, virtually any creditworthy household can benefit from filing for bankruptcy if it plans in advance and uses strategies such as those discussed here to increase its financial benefit. Because so many strategies are so effective, the bankruptcy system gives too many households an incentive to file. Second, the bankruptcy system produces inequitable results, because well-off households get much higher financial benefit from filing than those in true financial distress. The higher the bankruptcy exemption level, the more the distribution of benefit from filing for bankruptcy favors those with higher abilities to pay. Bankruptcy therefore provides the greatest "relief" to those in the least need. Third, the various strategies discussed here for increasing the financial benefit of bankruptcy have the practical effect of making the bankruptcy exemption nearly unlimited, because households can benefit from bankruptcy even though they are high up in the wealth distribution. Unfortunately, as we saw in Part II, an excessively high exemption level leads to inefficiencies, forcing Type A households to subsidize Type Bs and encouraging more Type B behavior.

E. The National Bankruptcy Review Commission's Exemption Proposals

In its recent report, the National Bankruptcy Review Commission ("NBRC") proposed a new, mandatory federal bankruptcy exemption for personal property of $20,000 for individual filers and $40,000 for married filers. States would be allowed to adopt homestead exemptions ranging from a minimum of $20,000 to a maximum of $100,000. In addition, renters would be able to take an additional exemption of $15,000 for individual filers and $30,000 for married filers.[85] These proposed exemptions are much more favorable to debtors than the current mix of state and federal exemptions, except for the wealthiest few debtors living in unlimited homestead exemption states such as Texas and Florida. Using the information and the results previously discussed, we can analyze the effects of the NBRC's exemption proposals.

Suppose the NBRC's proposed exemptions for personal property went into effect and, in addition, suppose all states adopted homestead exemptions of $60,000—the midpoint of the allowed range. If households did not engage in any strategic behavior, 25 percent of households would benefit from filing for bankruptcy under the NBRC proposal—a 50 percent increase relative to the base case result of 17 percent that we calculated using the actual exemptions prevailing in 1992. If households engaged in all of the strategies discussed above, then 37 percent of households would benefit from filing for bankruptcy under the NBRC proposal, compared to 34 percent under the actual exemptions prevailing in 1992.[86] Even if states did not adopt the maximum permitted

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[85] See *NBRC Final Report* ch 1 §§ 1.2.1-1.2.3 at 121-38 (cited in note 4).

[86] The equity effects of the NBRC's proposed reform fall between those of the Louisiana and Texas exemptions. If households do not follow any of the strategies discussed above to increase their financial benefit from bankruptcy, the proportions of households that would benefit from bankruptcy in the first, third, fifth, seventh, and ninth deciles of the ability to pay distribution are .36, .47, .34, .19, and .03, respectively. If households use all of the strategies discussed above to increase their financial benefit from bankruptcy, then the proportions are .42, .59, .51, .35, and .08 respectively. If states were assumed to adopt the maximum allowed homestead exemptions of $100,000 rather than $60,000, then the equity results under the NBRC proposal would move closer to the pattern given for

homestead exemption, the NBRC's proposed reform would substantially increase the proportion of households that would benefit financially from filing for bankruptcy. It would thus compound all of the problems of the current bankruptcy system.[87]

IV. BANKRUPTCY REFORMS

Combining the current Chapters 7 and 13 into a single personal bankruptcy procedure would solve many of the problems discussed above. Debtors filing for bankruptcy would be obliged to repay part or all of their debt using both wealth and future earnings, but there would be exemptions for both. The proposed reform is based on the principle that ability to repay debt depends on both wealth and future earnings, rather than only on wealth (as under Chapter 7) or only on future earnings (as under Chapter 13). Under the proposal, bankruptcy would be both more equitable and more efficient.

Although no one has previously proposed combining Chapters 7 and 13,[88] Thomas Jackson has questioned the justification

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Texas in Table 4, while if states were assumed to adopt the minimum allowed homestead exemption of $20,000, the equity results under the proposal would move closer to the pattern given for Louisiana in Table 4.

[87] These calculations actually understate the proportion of households that would benefit from bankruptcy under the NBRC's proposals, since the NBRC also proposed abolishing current restrictions on discharge of student loans in bankruptcy. See *NBRC Final Report* ch 1 § 1.4.5 at 207 (cited in note 4). Currently, 11 USC § 523(a)(8) prevents discharge of debt "for an educational benefit overpayment or loan made, insured or guaranteed by a governmental unit." This restriction, however, does not apply to debt outstanding for more than seven years. The calculations reported in Table 2 assume that student loans cannot be discharged in bankruptcy.

[88] There have been several proposals for reform of personal bankruptcy. William T. Vukowich, *Reforming the Bankruptcy Reform Act of 1978: An Alternative Approach*, 71 Georgetown L J 1129, 1152-55 (1983), advocated reducing the federal bankruptcy exemption and making it mandatory. He argued that too few debtors file under Chapter 13 and that reducing the Chapter 7 bankruptcy exemption would increase the number of filings under Chapter 13. William C. Whitford, *Has the Time Come to Repeal Chapter 13?*, 65 Ind L J 85, 94-104 (1989), asserted that Chapter 13 should be repealed and all personal bankruptcy filings should be under Chapter 7. Whitford argued that many debtors are unable to make an informed, self-interested choice between Chapters 7 and 13, id at 88-93, and that even if they could, filing under Chapter 13 is rarely in debtors' interest, id at 94-104. There have also been several reform proposals that involve making Chapter 13 mandatory for debtors who have regular incomes and pass a test of ability to repay some fraction of their debt from future income. Eisenberg, 28 UCLA L Rev at 986-91 (cited in note 38), discusses arguments for and against these proposals and the legislative history of congressional hearings on them during the 1960s. A recent proposal is the Responsible Borrower Protection Bankruptcy Act, introduced in the House of Representatives on September 18, 1997. HR 2500, 105th Cong, 1st Sess (Sept 18, 1997). It requires that debtors file for bankruptcy under Chapter 13 if they have income equal to 75 percent of the median family income for a household of the same size as the debtor's, id at Title I § 101(3)-(4), specifies a procedure for determining net income, id at Title I § 102(1)-(3), and gives guidelines for determining how much debtors are obliged to repay, id at Title I § 102(4). The bill also ex-

for having a federally mandated, 100 percent exemption for post-bankruptcy income.[89] He argued that only income below some predetermined minimum level, rather than all income, should be protected by bankruptcy law.[90] However, he also argued that, of the various forms of wealth, earnings are most deserving of bankruptcy protection because earnings are derived from human capital, and human capital is the least diversifiable of all forms of capital.[91] Jackson's discussion suggests that under the proposed bankruptcy reform, 100 percent of earnings below a predetermined floor should be exempt and a high fraction—but less than 100 percent—of earnings above the floor should be exempt. In fact, this is the general form of states' nonbankruptcy earnings exemptions and of the mandatory minimum earnings exemption specified in the federal Consumer Credit Protection Act,[92] which exempts the greater of 75 percent of weekly net earnings or thirty times the federal minimum wage per week. Twenty-four states and the District of Columbia follow the federal rule, while most of the remaining states have higher exemptions.[93]

Following this general approach, my proposed bankruptcy reform exempts all of debtors' post-bankruptcy earnings that are below a minimum dollar amount from the obligation to repay debt, but requires that debtors use a proportion of their post-bankruptcy earnings above the minimum dollar amount to repay debt. The repayment obligation excludes transfer payments—such as unemployment compensation, welfare payments, and child support—because income from transfer payments currently is exempt from wage garnishment.[94] A difficulty arises in that the federal earnings exemption applies to net of tax earnings, but the SCF data used here for the calculations contain information for

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tends the maximum length of Chapter 13 repayment plans from five to seven years for debtors with higher incomes, id at Title I § 117, and contains various other provisions intended to discourage bankruptcy filings.

[89] See Jackson, *Logic and Limits* at 226-28 (cited in note 25).

[90] Id at 256.

[91] Id at 257-58. Jackson also argued that the proportion of earnings that should be protected in bankruptcy should be greater for young people than older people, because the proportion of wealth that consists of human capital is higher for young people. Id at 255-56.

[92] 15 USC § 1673(a) (1994). Note that this provision specifically does not apply in bankruptcies under Chapter 13. See 15 USC § 1673(b)(1)(B) (1994).

[93] The data on state wage exemptions are taken in part from Robin Leonard, *Money Troubles: Legal Strategies to Cope with Your Debts* appendix 2 (Nolo 3d ed 1995).

[94] See 15 USC § 1672(a) (1994) (defining as earnings subject to garnishment only "compensation paid or payable for personal services"). Income generated by financial assets—such as interest, dividends, and capital gains—is also exempt from the requirement to repay debt from future earnings, because the financial assets themselves must be used to repay debt if they exceed the relevant asset exemption in bankruptcy.

only gross-of-tax earnings. To provide for this difference, this reform makes 90 percent of gross earnings (rather than 75 percent of net earnings) exempt. Also, the SCF gives earnings on a yearly rather than a weekly basis. Therefore the federal earnings exemption was converted from a weekly to a yearly format by assuming that the same exemption applies to fifty weeks of earnings per year. Taking the hourly minimum wage figure to be $5.00, the minimum earnings exemption is $7,500 (= 30 * 50 * $5.00) per year. The earnings exemption in bankruptcy therefore becomes the greater of 90 percent of gross earnings or $7,500 per year.[95] Because Chapter 13 repayment plans are normally for three years, the obligation to repay is assumed to apply for three years after the bankruptcy filing. Because the SCF gives data on earnings only for one year, it is assumed that debtors' earnings remain the same over the three year period of the repayment obligation.

Requiring that debtors use a fraction of their future earnings to repay their debt is more workable than the current Chapter 13 provision, under which all of debtors' "disposable income" for three years must be used to repay debt if unsecured creditors object to confirmation of a repayment plan.[96] The current formula is clearly impractical. In order to determine "disposable income," bankruptcy judges must first verify debtors' income, and then determine how much income is "not reasonably necessary to be expended . . . for the maintenance or support of the debtor or a dependent."[97] This standard is not merely difficult to implement, but doing so would be extremely inefficient, because the 100 percent tax on disposable income would give debtors an incentive to reduce their income to the point where none of it is disposable. In contrast, the proposed approach of requiring that a fixed fraction of future earnings be used to repay debt slightly reduces, but does not eliminate, debtors' incentives to earn. It also would be much easier to administer, because only income needs to be verified, and this can be done using tax returns.[98]

In addition to providing a fractional wage exemption, this

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[95] A peculiarity of the formula used here is that yearly earnings below $7,500 are completely exempt, yearly earnings between $7,500 and $8,333 are subject to a 100 percent repayment tax, and yearly earnings above $8,333 are subject to a 10 percent repayment tax. This gives debtors whose earnings are in the $7,500 to $8,333 range a strong incentive to reduce their work effort. A different formula or a compensating adjustment could be developed that eliminates this feature.

[96] 11 USC § 1325(b)(1)(B).

[97] 11 USC § 1325(b)(2).

[98] The proposed earnings exemption could be adjusted based on family size, so that it would be larger for families than for single debtors.

proposal incorporates asset exemptions. Two different reforms of asset exemptions in bankruptcy are analyzed. Reform I involves retaining the actual state-specific asset exemptions in bankruptcy that prevailed in 1992, but will include the higher federal exemptions that Congress enacted in 1994.[99] Congress doubled the federal homestead exemption from $7,500 to $15,000 and doubled the federal personal property exemption from $400 plus $3,750 of any unused property exemption to $800 plus $7,500 of any unused property exemption, with both figures doubled for married couples who file for bankruptcy.[100] The earnings exemption is assumed to be the greater of 90 percent of gross earnings or $7,500 per year for three years.[101]

Under Reform II, everything remains the same except that a uniform asset exemption in bankruptcy of $30,000 replaces the state-specific exemptions. This asset exemption is assumed to apply to any type of property, including retirement accounts and the cash value of life insurance, and it is not doubled for married couples. The figure of $30,000 is chosen because it approximately equals the average post-1994 value of the federal asset exemption in bankruptcy for a single debtor. The main advantage of adopting a single bankruptcy exemption for most assets is that it sharply reduces households' incentives to engage in the types of strategic behavior discussed in the previous Parts. Households would no longer have an incentive to convert personal property into homestead equity or retirement funds, for example, because the exemption itself would apply to all types of assets. Because the process of converting assets from nonexempt to exempt categories is costly and wasteful,[102] this change would improve efficiency. Similarly, households would no longer have an incentive to move from low to high exemption states, because all states would have the same exemption. The more types of assets that the uniform asset exemption covered, the smaller the return from engaging in strategic behavior would be.

As a base case for evaluating the effects of the two Reforms, Table 5 recalculates the proportion of households that would benefit from filing for bankruptcy under the current system, assuming that the federal bankruptcy exemption doubles in value.

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[99] Bankruptcy Reform Act of 1994, Title I § 108, Pub L No 103-394, 108 Stat 4106, 4111-12, codified at 11 USC § 522(d) (1994).

[100] 11 USC § 522(d)(1), (5).

[101] See text accompanying note 95.

[102] For example, when debtors sell nonexempt collections or vacation homes in order to convert them into homestead equity, they incur high transaction costs and often receive less for the assets than the debtors' own valuations.

The results shown in Table 5 are for the same group of eleven states as discussed above and for the United States overall. Comparing the results in Column 1 of Table 5 to those in Column 1 of Table 2, only the figures for Massachusetts, Michigan, New Jersey, and Texas change, because only these states allow use of the federal bankruptcy exemption. The doubling of the federal exemption in bankruptcy raises the proportion of households that benefit from bankruptcy from .18 to .23 in Massachusetts, .14 to .21 in Michigan and New Jersey, and from .32 to .33 in Texas. For the United States overall, the increase is from .17 to .185—a 9 percent increase. Column 4 of Table 5 gives the median dollar benefit of filing when the federal exemption doubles. These figures remain nearly the same as in Column 1 of Table 3.

Now turn to the results under Reform I, shown in Columns 2 and 5 of Table 5. Requiring that households use part of their future earnings to repay debt in bankruptcy sharply reduces the pool of households that would benefit from filing for bankruptcy, from .185 to .08 of all United States households. The largest reduction occurs in Texas, where the proportion of households that would benefit from bankruptcy falls from .33 to .12, and in Mississippi, where the reduction is from .30 to .11. The median net benefit also falls sharply for the United States, from $1,650 when the federal exemption is doubled to $1,280 under Reform I. This is because those households that previously received the largest benefit from bankruptcy tend to have a relatively high ability to repay and therefore are less likely to find bankruptcy worthwhile if future wages are not fully exempt. The results suggest that even a moderate obligation to repay debt from future earnings substantially reduces the proportion of households that would benefit from filing for bankruptcy.

Reform II, which substitutes a uniform asset exemption of $30,000 for the state-specific asset exemptions in bankruptcy, is shown in Columns 3 and 6 of Table 5. Because the results do not vary across states, only the figure for the United States overall is given. The proportion of households that benefit financially from bankruptcy is similar under Reforms I and II: .08 versus .09, respectively. The median dollar benefit figures are also very similar: $1,280 for the United States overall under Reform I compared to $1,200 under Reform II. Although the uniform asset exemption eliminates the most favorable exemptions currently in effect, it increases the value of the bankruptcy exemption for households in low exemption states and also allows households to utilize the exemption more fully.

Table 6 gives the equity effects of doubling the federal bankruptcy exemption and of Reforms I and II. Again, the Louisiana and Texas exemptions are used as illustrations. Columns 1 and 2 give the proportion of households that benefit from filing for bankruptcy for each of the odd-numbered financial well-being deciles, based as above on assets plus three times earnings.[103] Columns 3 and 4 give the median dollar benefit figures for these deciles when the federal exemption is doubled. The figures for Louisiana in Columns 1 and 3 of Table 6 are the same as in Table 4, because Louisiana does not permit debtors to use the federal bankruptcy exemption. For Texas, comparing the results in Columns 2 and 4 of Table 6 with the base case (Columns 2 and 4 of Table 4) shows that after doubling the federal exemption, a few additional households benefit from bankruptcy in the middle three deciles, and the median benefit figures tend to fall.

Now, using Column 5 of Table 6, compare the equity effects of Reform I, using the Louisiana exemption, with the situation when the federal exemption was merely doubled (Column 1 of Table 6). While the proportion of households that benefit from bankruptcy in the lowest decile of the ability to pay distribution remains at .23, the proportion of households that benefit from bankruptcy in each of the higher deciles falls, from .20 to .05 in the third decile and from .12 to .02 in the fifth decile. Above the fifth decile, no Louisiana households benefit from bankruptcy under Reform I. For the Texas exemption, the proportion of households that benefit from bankruptcy also remains the same (.38) in the lowest decile, but falls from .52 to .18 in the third decile and from .47 to .09 in the fifth decile. Although a small proportion of households in the seventh decile benefit from bankruptcy (.03), no households in the ninth decile benefit. Reform I thus improves equity by concentrating much more of the bankruptcy debt relief on households in the lowest few deciles of the ability to pay distribution. Under Reform I, households that have either high wealth or high future earnings are much less likely to benefit from bankruptcy.

The results under Reform II are shown in Columns 9 and 10 of Table 6. Here the proportion of households that benefit from bankruptcy in the lowest decile of the ability to pay distribution is .38, falling to .09 in the third decile, .02 in the fifth decile, .01 in the seventh decile, and zero in the ninth decile. However, for those households that do benefit from bankruptcy, the financial gain from filing for bankruptcy is higher than under Reform I and higher than under the current system with the doubled federal

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[103] See Part III.D.

exemption. This is because households utilize the exemption more fully, and because renters get the same exemption as owners.

Thus both Reform I and Reform II improve efficiency by reducing the overall proportion of households that have an incentive to file for bankruptcy, and also improve equity by reducing the number of households that benefit financially from bankruptcy despite having a high ability to repay their debts. A striking aspect of the Reforms is that even a relatively low requirement to repay debt from future income—10 percent of gross future earnings over three years—causes a very substantial reduction in the proportion of households in the middle and upper deciles of the ability to pay distribution who find it worthwhile to file for bankruptcy. Reform II has the additional advantage of being strategy-proof, because households cannot increase their financial benefit from bankruptcy by using "asset shuffling" strategies.

CONCLUSION

This Article has demonstrated that United States bankruptcy procedures can be reformed in a way that increases both efficiency and equity. Combining Chapters 7 and 13 and reforming the asset exemptions would reduce the overall proportion of households that benefit financially from bankruptcy, but would accomplish this mainly by reducing the proportion of high ability to pay households that have an incentive to file. If the Reforms were adopted, bankruptcy still would be available to provide debt relief to households that have low ability to pay, but it would no longer give well-off households with high earnings and/or high assets an incentive to file for bankruptcy. The particular exemption levels used for assets and future earnings in Reforms I and II are obviously somewhat arbitrary. Higher or lower values of the asset and/or earnings exemptions would increase or decrease the proportion of households that would benefit from bankruptcy. But even with higher exemption levels, the proposed reform of combining Chapters 7 and 13 would still improve equity by concentrating more of the benefit from bankruptcy on the least well-off households. The proposed reforms better align bankruptcy law with debtors' ability to repay, and also eliminate the perverse incentive structure that currently allows the households with the highest ability to repay to obtain the largest benefit from bankruptcy.

Table 1: Comparison of Expected Wealth with No Bankruptcy Versus Bankruptcy Procedures with Exemption Levels of $30,000 and $45,000

	Wealth in the worst outcome ($30,000) prob. = .02	*Wealth in the intermediate outcome ($45,000) prob. = .03*	*Wealth in the best outcome ($60,000) prob. = .95*	*Expected wealth*
No bankruptcy procedure; proportion of Type Bs = 0; interest rate = 4 percent				
(1) Type *A*:	$17,520	$32,520	$47,520	$46,470
Bankruptcy procedure with a $30,000 exemption level; proportion of Type Bs = 0; interest rate = 6.12 percent				
(2) Type *A*:	30,000	32,266	47,266	46,471
Bankruptcy procedure with a $30,000 exemption level; proportion of Type Bs = .02; interest rate = 6.19 percent				
(3a) Type *A*:	30,000	32,257	47,257	46,462
(3b) Type *B*:	30,000	45,000	47,257	46,844
Bankruptcy procedure with a $45,000 exemption level; proportion of Type Bs = .04; interest rate = 14 percent				
(4a) Type *A*:	30,000	45,000	46,320	45,954
(4b) Type *B*:	30,000	45,000	60,000	58,950

Table 2: The Proportion of Households that Would Benefit from Bankruptcy

	Base Case (1)	*Cost = $350* (2)	*Strategy I* (3)	*Strategy II* (4)	*Strategy III* (5)	*All Strategies* (6)
California	.16	.14	.20	.24	.23	.35
Florida	.14	.12	.19	.30	.21	.48
Illinois	.14	.12	.14	.17	.18	.21
Louisiana	.10	.08	.11	.16	.15	.21
Massachusetts	.18	.16	.22	.29	.25	.42
Michigan	.14	.12	.14	.16	.19	.20
Mississippi	.30	.25	.36	.41	.38	.53
New Jersey	.14	.12	.14	.16	.19	.20
New York	.16	.13	.17	.19	.20	.23
Ohio	.11	.10	.12	.15	.15	.19
Texas	.32	.27	.36	.42	.44	.61
U.S.	.17	.15	.20	.24	.24	.34

Table 3: The Median Net Benefit of Filing for Bankruptcy

	Base Case (1)	*All Strategies* (2)
California	$1,700	$3,525
Florida	1,950	6,300
Illinois	1,500	2,800
Louisiana	1,720	3,000
Massachusetts	1,770	3,875
Michigan	1,650	2,800
Mississippi	1,650	4,600
New Jersey	1,650	2,800
New York	1,400	2,950
Ohio	1,585	2,770
Texas	1,680	5,900
U.S.	1,650	3,845

Table 4: The Equity Effects of Bankruptcy—
Proportion of Households that Benefit and Median Net Benefit

Base Case

Decile	*Proportion Benefit Louisiana* (1)	*Proportion Benefit Texas* (2)	*Dollar Benefit Louisiana* (3)	*Dollar Benefit Texas* (4)
1	.23	.38	$760	$800
3	.20	.50	2,350	1,500
5	.12	.46	1,930	2,370
7	.03	.31	2,400	2,500
9	.01	.08	4,000	5,000

All Strategies

Decile	*Proportion Benefit Louisiana* (5)	*Proportion Benefit Texas* (6)	*Dollar Benefit Louisiana* (7)	*Dollar Benefit Texas* (8)
1	.34	.43	$1,280	$1,200
3	.41	.63	2,400	2,880
5	.31	.73	4,900	5,000
7	.12	.67	7,500	6,000
9	.02	.59	7,040	10,500

Source: Calculations by the author using data from the Board of Governors of the Federal Reserve System, *Survey of Consumer Finance* (1992).

Table 5: The Proportion of Households that Would Benefit from Bankruptcy Under Two Reforms and the Median Net Benefit

State	*Doubling Proportion Benefit* (1)	*Reform I Proportion Benefit* (2)	*Reform II Proportion Benefit* (3)	*Doubling Dollar Benefit* (4)	*Reform I Dollar Benefit* (5)	*Reform II Dollar Benefit* (6)
California	.16	.08	-	$1,700	$1,280	-
Florida	.14	.07	-	1,950	1,500	-
Illinois	.14	.06	-	1,500	1,100	-
Louisiana	.10	.05	-	1,720	1,250	-
Massachusetts	.23	.09	-	1,700	1,500	-
Michigan	.21	.08	-	1,665	1,280	-
Mississippi	.30	.11	-	1,650	1,500	-
New Jersey	.21	.08	-	1,665	1,280	-
New York	.16	.07	-	1,400	1,070	-
Ohio	.11	.05	-	1,585	1,000	-
Texas	.33	.12	-	1,680	1,500	-
U.S.	.185	.08	.09	1,650	1,280	$1,200

Table 6: The Equity Effects of Bankruptcy Reform
Proportion of Households that Benefit and Median Net Benefit

Doubling the Federal Exemption

Decile	*Proportion Benefit Louisiana* (1)	*Proportion Benefit Texas* (2)	*Dollar Benefit Louisiana* (3)	*Dollar Benefit Texas* (4)
1	.23	.38	$760	$760
3	.20	.52	2,350	1,500
5	.12	.47	1,930	2,385
7	.03	.33	2,400	2,330
9	.01	.08	4,000	5,000

Reform I

Decile	*Proportion Benefit Louisiana* (5)	*Proportion Benefit Texas* (6)	*Dollar Benefit Louisiana* (7)	*Dollar Benefit Texas* (8)
1	.23	.38	$760	$760
3	.05	.18	1,470	1,800
5	.02	.09	2,880	2,000
7	.00	.03	-	5,200
9	.00	.00	-	-

Table 6: The Equity Effects of Bankruptcy Reform (continued)

Reform II

Decile	*Proportion Benefit U.S.* (9)	*Dollar Benefit U.S.* (10)
1	.38	$795
3	.09	1,800
5	.02	4,000
7	.01	8,460
9	.00	-

Appendix 1: Bankruptcy Exemptions

State	*Homestead*[a]	*General Exemption*[b]	*Major Categories Exemption*[c]	*Retirement Accounts*[d]	*Motor Vehicle*	*Wildcard*[e]	*Federal Exemption?*	*State Statute*
AK	$54,000	$0	$3,000*	unlimited	$3,000*	$0	Yes	Alaska Stat Ann §§ 9.38.010, .017, .020 (Michie 1996)
AL	5,000*	3,000*	unlimited[f]	0	0	0	No	Ala Code §§ 6-10-2, 6, 11 (Michie 1993)
AR	2,500; unlimited[g]	500	1,250	20,000	1,200*	0	Yes	Ark Stat Ann §§ 16-66-210, 217, 218 (Michie 1987 & Supp 1997)

* If law gives exemption to extent of debtor's interest, this Appendix assumes that the exemption may be doubled when husband and wife file jointly. If law exempts property, without reference to extent of debtor's interest, or if it gives exemption to head of household, this Appendix assumes that the exemption may not be doubled if husband and wife file jointly.

[a] Homestead exemption: assumes debtor is head of household. Exemption does not include any exemption for property held as a tenancy by the entirety against debts owed by only one spouse.

[b] General exemption: exemption applicable to any type of personal property.

[c] Major categories exemption: exemptions for household furnishings, clothing, and other major categories of personal property.

[d] Retirement accounts: exemption for individual retirement and pension accounts.

[e] Wildcard: exemption applicable to any property of the debtor, including property that would be nonexempt otherwise.

[f] Unlimited exemption for "necessary" apparel.

[g] Exemption of $2,500 for homestead larger than 1/4 acre in urban area (160 acres in rural area); unlimited exemption for smaller homesteads.

AZ	100,000	150*	4,500*	unlimited	1,500*	0	No	Ariz Rev Stat Ann §§ 33-1101, 1123, 1125, 1133 (West 1990 & Supp 1997)
CA	7,500	0	unlimited[h]	unlimited	1,200	400	No	Cal Civ Proc Code §§ 703.130, 140 (West 1987 & Supp 1998)
CO	30,000	0	2,250*	unlimited	1,000*	0	No	1997 Colo Rev Stat Ann §§ 38-41-1201; 54-102, 107 (West)
CT	0	0	unlimited[f]	0; unlimited[i]	1,500*	0	Yes	Conn Gen Stat Ann §§ 52-321a; 352b (West 1991 & Supp 1997)
DC	0	0	600	0	500[j]	0	Yes	DC Code Ann § 15-501 (Michie 1995)
DE	0	0	0	0	0	5,000*	No	10 Del Code Ann § 4914 (Michie Supp 1996)
FL	unlimited	1,000*	0	unlimited	0	0	No	Fla Stat Ann I §§ 222.01, 20, 21 (West 1989); Fla Const, Art 10, § 4

[h] Exemption of all household furnishings, clothes, and other goods, provided debtor's interest in each item does not exceed $200.
[i] Exemption is 0 prior to October 1, 1992; unlimited afterward.
[j] Only if vehicle is used for debtor's trade or business.

GA	5,000*	0	3,500*	unlimited	1,000*	400*	No	Ga Code Ann I §§ 18-4-22; 44-13-100 (Michie 1982)
HI	30,000	0	1,000*	unlimited	1,000*	0	Yes	Hawaii Rev Stat §§ 36-651-92, 121, 124 (1993)
IA	unlimited	100*	3,000*	unlimited	5,000*	0	No	Iowa Code Ann §§ 561.2, 16; 627.6, 10 (West 1950, 1992 & Supp 1997)
ID	50,000	0	4,000*	unlimited[k]	1,500*	0	No	Idaho Code Ann §§ 11-604, 605, 609; 55-1002, 1003, 1011 (Michie 1990, 1994)
IL	7,500*	2,000*	0	unlimited	1,200*	0	No	735 ILCS 5/12-901, 1001, 1006, 1201 (Michie 1993)
IN	7,500*	100*	0	unlimited	0	4,000*	No	Ind Code Ann §§ 34-2-28-.5, 1 (West 1983 & Supp 1997)
KS	unlimited	0	unlimited[l]	unlimited	20,000*[m]	0	No	Kan Stat Ann §§ 60-2301, 2304, 2308, 2312 (Supp 1992)

[k] Exempt to extent necessary for support of debtor and dependents.
[l] Unlimited exemption for furnishings and clothing necessary for one year.
[m] If motor vehicle used for transportation to debtor's regular place of work.

KY	5,000*	0	3,000*	unlimited	2,500*	1,000*	No	Ky Rev Stat Ann §§ 427.010, 060, 150, 160, 170 (Michie 1992)
LA	15,000	0	unlimited	unlimited[n]	unlimited[o]	0	No	La Rev Stat Ann §§ 13:3881; 20:1 (West 1979, 1991 & Supp 1997)
MA	100,000	425*	3,000*	unlimited	700*	0	Yes	Mass Ann Laws ch 188, §1; ch 235, § 34 (Michie/Law Co-Op 1981 & Supp 1994, 1986 & Supp 1997)
MD	0	3,000*	500*	unlimited[n]	0	2,500*	No	Md Cts & Judic Proc Code Ann § 11-504 (Michie 1995)
ME	12,500*[p]	0	unlimited*[h]	unlimited[n]	2,500*	400	No	14 Me Rev Stat Ann §§ 4422; 4426 (West Supp 1997)
MI	3,500*	0	1,000*	unlimited[n]	1,000*[o]	0	Yes	Mich Comp Laws Ann § 600.6023 (West 1987 & Supp 1997)

[n] Unlimited to extent contributions were exempt from federal income tax.
[o] If motor vehicle is used for business.
[p] Exemption rises to $25,000 if debtor has dependent minors whose principal place of residence is the debtor's homestead.

MN	unlimited	0	6,750*	45,000[q]	3,000*	0	Yes	Minn Stat Ann §§ 510.01; 550.37, 371 (West 1990, 1988 & Supp 1998)
MO	8,000	0	1,000*	unlimited[k]	1,000*[r]	1,250*[s]	No	Mo Ann Stat §§ 513.427, 430, 440, 475 (West Supp 1997)
MS	75,000*	10,000*	0	unlimited[k]	0	0	No	Miss Code §§ 85-3-1, 2, 21 (1991)
MT	40,000	0	4,500*[t]	unlimited	1,200*	0	No	Mont Code Ann §§ 25-13-609; 31-2-106, 70-32-104 (1997)
NB	10,000	0	1,500*	unlimited[k]	0	0	No	Neb Rev Stat §§ 25-1556, 1563.01; 25-15, 105; 40-101 (1985, 1993 & Supp 1988)
NC	10,000*	0	3,500*[u]	0	1,500*	0	No	NC Gen Stat § 1C-1601 (Michie 1995)

[q] Present value of retirement account; higher exemptions available to the extent reasonably necessary to support debtor and any spouse or dependents.
[r] 1992 amendment raised exemption from $500 to $1000.
[s] Additional exemption of $250 per dependent child.
[t] Exemption applies to any household furnishing, clothing, etc., where debtor's interest does not exceed $400 per item.
[u] Plus $750 per dependent, not to exceed a total of $3,000.

ND	80,000	5,000	0	200,000*[q]	1,200*	0	No	ND Cent Code §§ 28-22-03, 03.1, 17; 47-18-01 (Michie 1978, 1991 & Supp 1997)
NH	30,000*	0	2,000*	0	1,000	1,000*	No	NH Rev Stat Ann §§ 480:1; 511:2 (Michie 1997 & Supp 1997)
NJ	0	1,000*	0	0	0	0	Yes	NJ Stat Ann § 2A:17-19 (West 1987)
NM	20,000*	500*	0	unlimited	4,000*	0	Yes	NM Stat Ann §§ 42-10-1, 9 (Michie Supp 1996)
NV	95,000*	0	3,000*	100,000*	1,500*	0	No	Nev Rev Stat § 21.090 (1995)
NY	10,000*	0	5,000	unlimited	2,400*	0	No	1997 NY Laws Debtors and Creditors §§ 282-84; 1997 NY Laws Civil Practice Law and Rules §§ 5205-06 (West)
OH	5,000*	400*	unlimited[v]	unlimited	1,000*	400*	No	Ohio Rev Code Ann §§ 2329.66, 662 (Baldwin 1993)

[v] Exemption for household furnishings and other personal property where debtor's interest does not exceed $200 per item.

OK	unlimited	0	unlimited[w]	unlimited[n]	3,000*	0	No	31 Okla Stat Ann § 1 (West 1991)
OR	15,000	400*	1,450*	unlimited[n]	1,200*	0	No	Or Rev Stat §§ 23.160, 170, 240, 305 (West 1995)
PA	0	0	0	unlimited	0	300*	Yes	42 Pa Cons Stat Ann §§ 8123; 8124 (Purdon 1982 & Supp 1997)
RI	0	0	1,000	unlimited[n]	0	0	Yes	RI Gen Laws § 9-26-4 (Michie 1997)
SC	5,000*	0	2,500*	unlimited	1,200*	0	No	SC Code Ann §§ 15-41-30, 35 (Law Co-op Supp 1997)
SD	unlimited	4,000	0	0	0	0	No	SD Code Laws §§ 43-31-1; 43-45-2, 3, 4, 13 (1997)
TN	5,000	4,000*	0	unlimited[x]	0	0	No	Tenn Code Ann §§ 26-2-102, 111, 301 (Michie 1980 & Supp 1997)

[w] Debtor's interest in clothing cannot exceed $4,000.

[x] Unlimited exemption extends only to retirement accounts that do not give the debtor the right or option to receive payments from the accounts prior to age 58.

TX	unlimited	0	30,000*	unlimited[n]	0	0	Yes	Tex Property Code Ann §§ 41.002; 42.001, 002, 0021 (Vernon 1984 & Supp 1998)
UT	8,000[y]	0	500*	unlimited	1,500[j]	0	No	Utah Code Ann §§ 78-23-3, 5, 8, 15 (Michie 1996)
VA	0	0	6,000*	unlimited[z]	2,000*	5,000*	No	Va Code §§ 34-3.1, 4, 26, 34 (Michie 1996)
VT	30,000*	700*	2,500*	10,000*[aa]	2,500*	7,400*	Yes	12 Vt Stat Ann § 2740 (Michie Supp 1997); 27 Vt Stat Ann § 101 (Michie 1989)
WA	30,000	1,000	3,700	unlimited	2,500	0	Yes	Wash Rev Code Ann §§ 6.13.020, .030; 6.15.010, .020, .050 (West 1995)
WI	40,000	1,000*	5,000*	unlimited	1,200*	0	Yes	Wis Stat Ann §§ 815.18, 20 (West 1996)
WV	7,500*	0	1,000[h]	unlimited	1,200*	400*	No	W Va Code § 38-10-4 (Michie 1985)

[y] Exemption of $10,000 if debtor is married; additional $500 exemption per dependent.
[z] Unlimited exemption to extent that retirement plan will offer no more than $17,500 annual benefit.
[aa] Unlimited exemption for debtor's interest in pensions and other retirement interests.

WY	10,000*	0	3,000*	unlimited	2,000*	0	No	Wyo Stat § 1-20-101, 102, 105, 106, 109, 110 (1988 & Supp 1997)
Federal	7,500*	0	4,000*[h]	unlimited[k]	1,200*	400*	N/A	11 USC § 522 (1994)